

AMERICA'S UNDERWATER TREASURES



Flower Garden Banks National Marine Sanctuary Expansion

G.P. Schmahl
Sanctuary Superintendent

Gulf of Mexico Fishery Management Council

April 1, 2015





FEDERAL REGISTER

The Daily Journal of the United States Government

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Proposed Rule

Revisions of Boundaries for Flower Garden Banks National Marine Sanctuary; Intent To Prepare Draft Environmental Impact Statement

A Proposed Rule by the National Oceanic and Atmospheric Administration on 02/03/2015



Federal Register Vol. 80, No. 22 / February 3, 2015

“Notice of Intent” – Public Scoping / Draft EIS

- New Orleans, LA – March 3rd / Airport Hilton
- Houston, TX – March 5th / Bayland Community Center
- Galveston, TX – March 11th / FGBNMS Office

Public Comment period closes: April 6, 2015

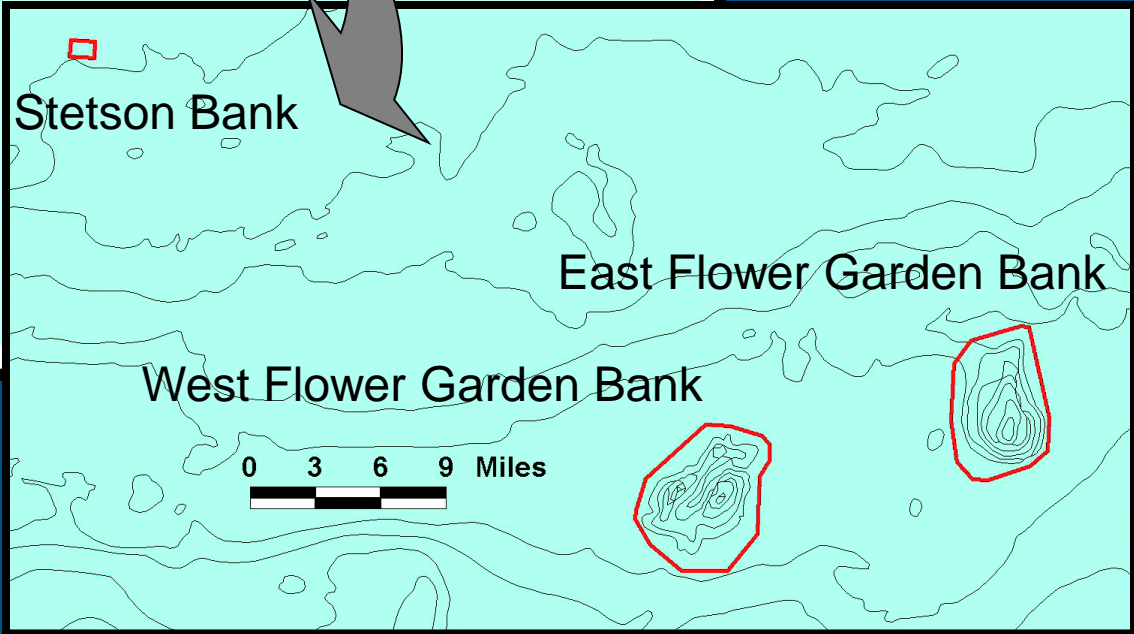
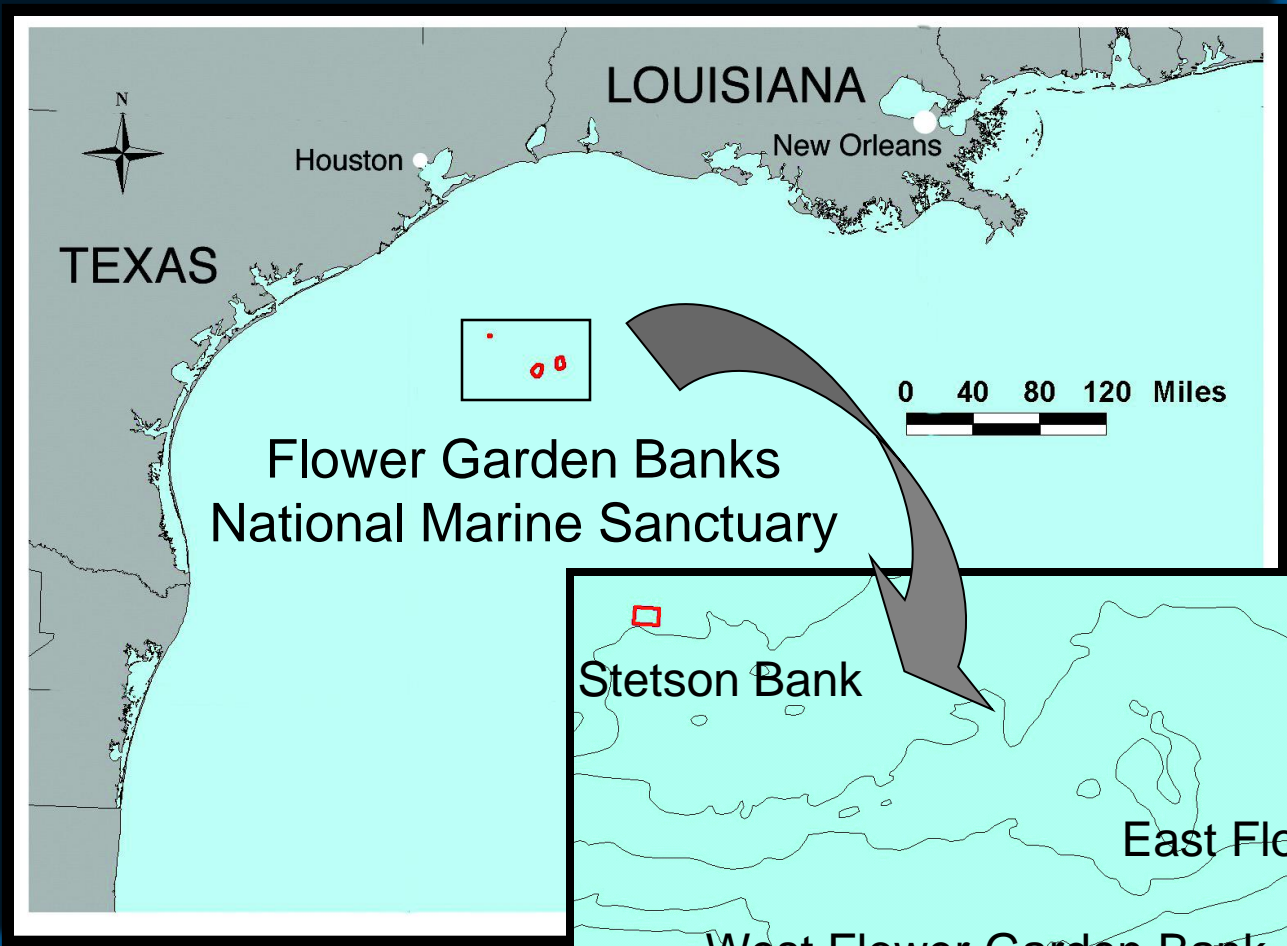


Our National Marine Sanctuaries

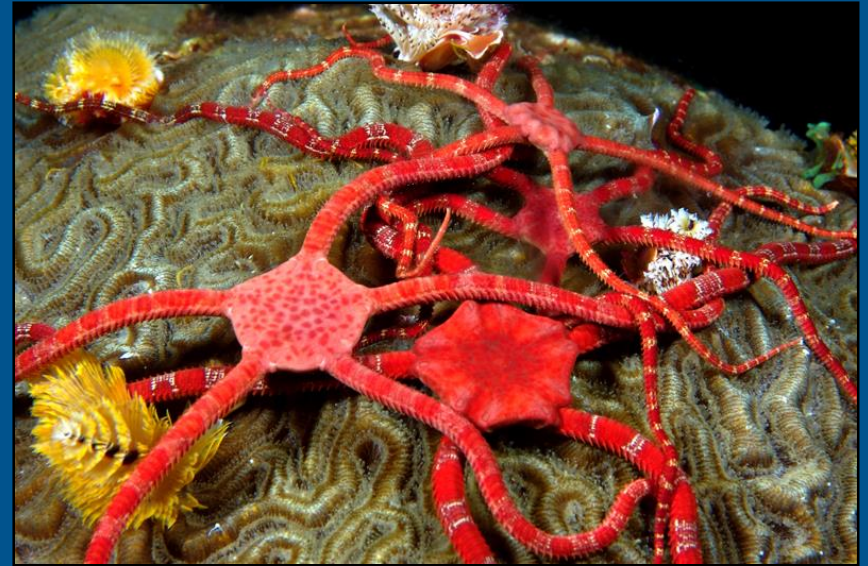


● National Marine Sanctuary

★ Marine National Monument



Remarkable Reefs of the Flower Garden Banks



Regulated Activities

- Anchoring - all anchoring prohibited
 - Mooring buoys provided on coral reef cap
 - Vessels over 100 ' cannot use mooring buoys
- Discharges - prohibited, with some exceptions
- Taking coral or invertebrates - prohibited
- Fishing - only hook and line fishing allowed
 - Spearfishing is prohibited
 - Possession of unauthorized gear prohibited
 - Vessels with unauthorized gear (shrimpboats, longliners) cannot stop or moor within the sanctuary

National Marine Sanctuaries
National Oceanic and Atmospheric Administration

FLOWER GARDEN BANKS NATIONAL MARINE SANCTUARY



FLOWER GARDEN BANKS FINAL MANAGEMENT PLAN



April 2012

<http://flowergarden.noaa.gov>

Flower Garden Banks National Marine Sanctuary Revised Management Plan April 2012

- Sanctuary Expansion
- Education and Outreach
- Research and Monitoring
- Resource Protection
- Visitor Use
- Operations and Administration

“Action Plan” Implementation

Sanctuary Expansion Action Plan

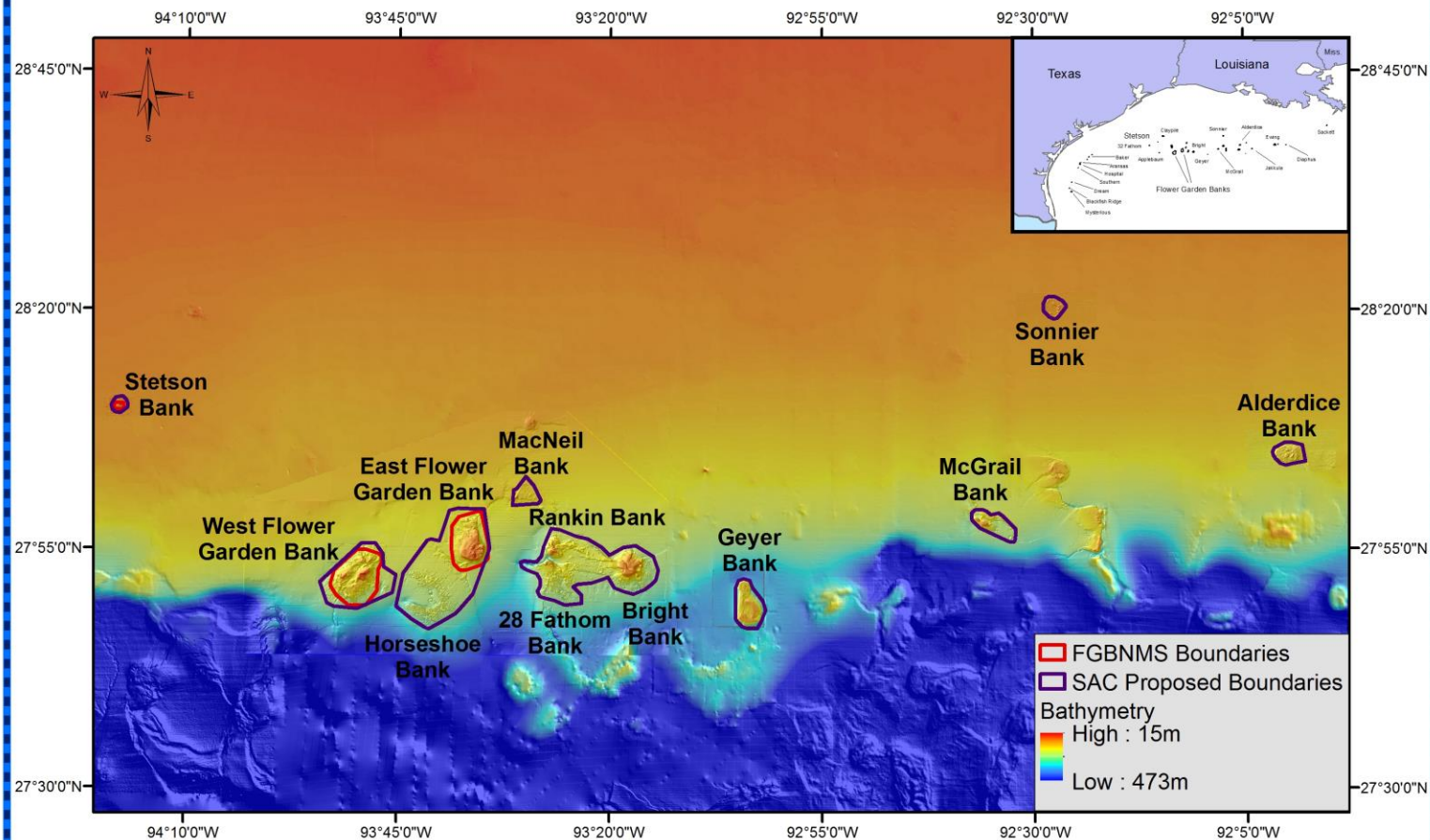
Strategy: SE.1 “Evaluate and expand, as appropriate, the network of protected areas within the sanctuary to include 5-12 additional reefs and banks, and to modify the existing boundary of East and West Flower Garden and Stetson Banks to include critical adjacent habitat.”

Activity: 1.1 “Develop a draft environmental impact statement (DEIS) to evaluate alternatives for incorporating additional reefs and banks in the northwestern Gulf of Mexico into FGBNMS, and identify a preferred alternative.”

Regulatory: This activity implemented through a public rule-making process, and must follow NEPA guidelines.

Flower Garden Banks NMS Management Plan

Sanctuary Advisory Council Recommendations for Sanctuary Expansion



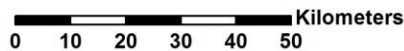
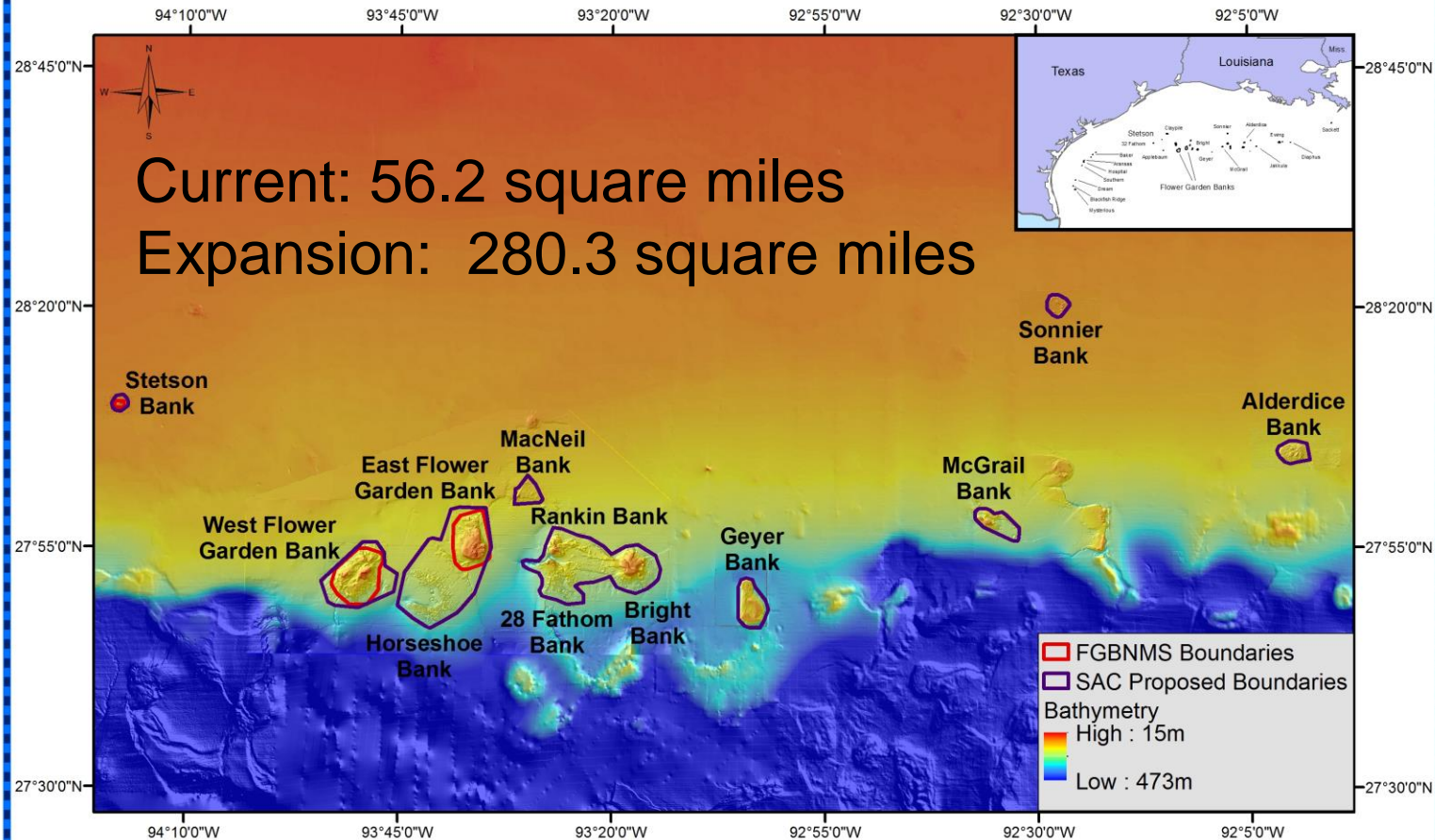
Bathymetry courtesy of USGS, UNH, Gardner and NOAA

M. Nuttall, FGBNMS, Feb 2015



Flower Garden Banks NMS Management Plan

Sanctuary Advisory Council Recommendations for Sanctuary Expansion



Bathymetry courtesy of USGS, UNH, Gardner and NOAA

M. Nuttall, FGBNMS, Feb 2015



Sanctuary Advisory Council

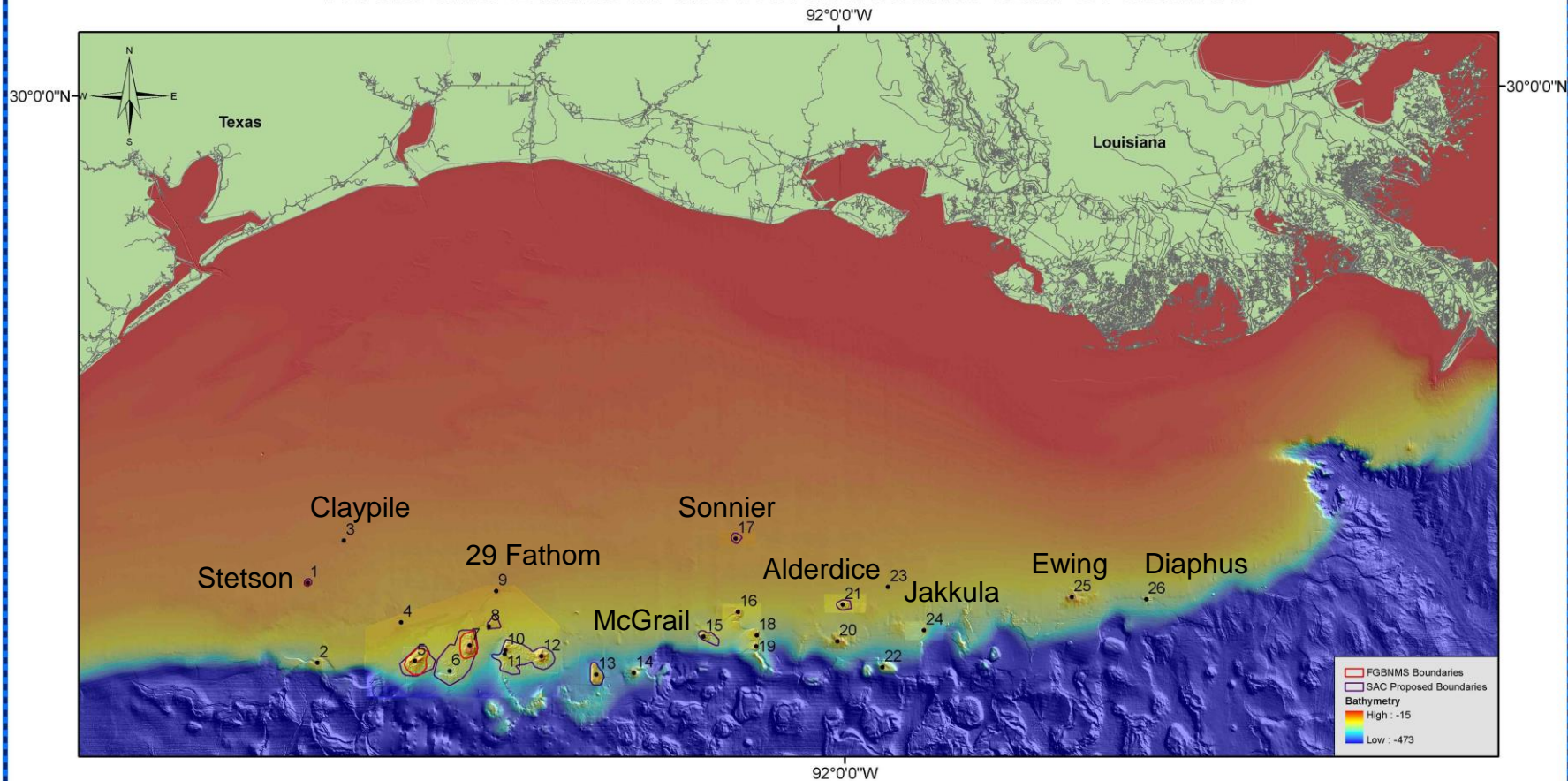
- Recreational Diving
- Dive Operators
- Oil and Gas Industry
- Recreational Fishing
- Commercial Fishing
- Education
- Research
- Conservation



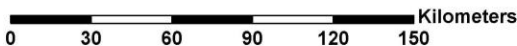
AGENCY (NON-VOTING)

- NOAA Fisheries
- Bureau of Ocean Energy Management
- Bureau of Safety & Environmental Enforcement
- U.S. Coast Guard
- NOAA Law Enforcement

Reefs and Banks in the Northwestern Gulf Of Mexico



1. Stetson Bank, 2. Applebaum Bank, 3. Claypile Bank, 4. Coffee Lump Bank, 5. West Flower Garden Bank, 6. Horseshoe Bank, 7. East Flower Garden Bank, 8. MacNeil Bank, 9. 29 Fathom Bank, 10. Rankin Bank, 11. 28 Fathom Bank, 12. Bright Bank, 13. Geyer Bank, 14. Elvers Bank, 15. McGrail Bank, 16. Bouma Bank, 17. Sonnier Bank, 18. Rezak Bank, 19. Sidner Bank, 20. Parker Bank, 21. Alderdice Bank, 22. Sweet Bank, 23. Fishnet Bank, 24. Jakkula Bank, 25. Ewing Bank, 26. Diaphus Bank,

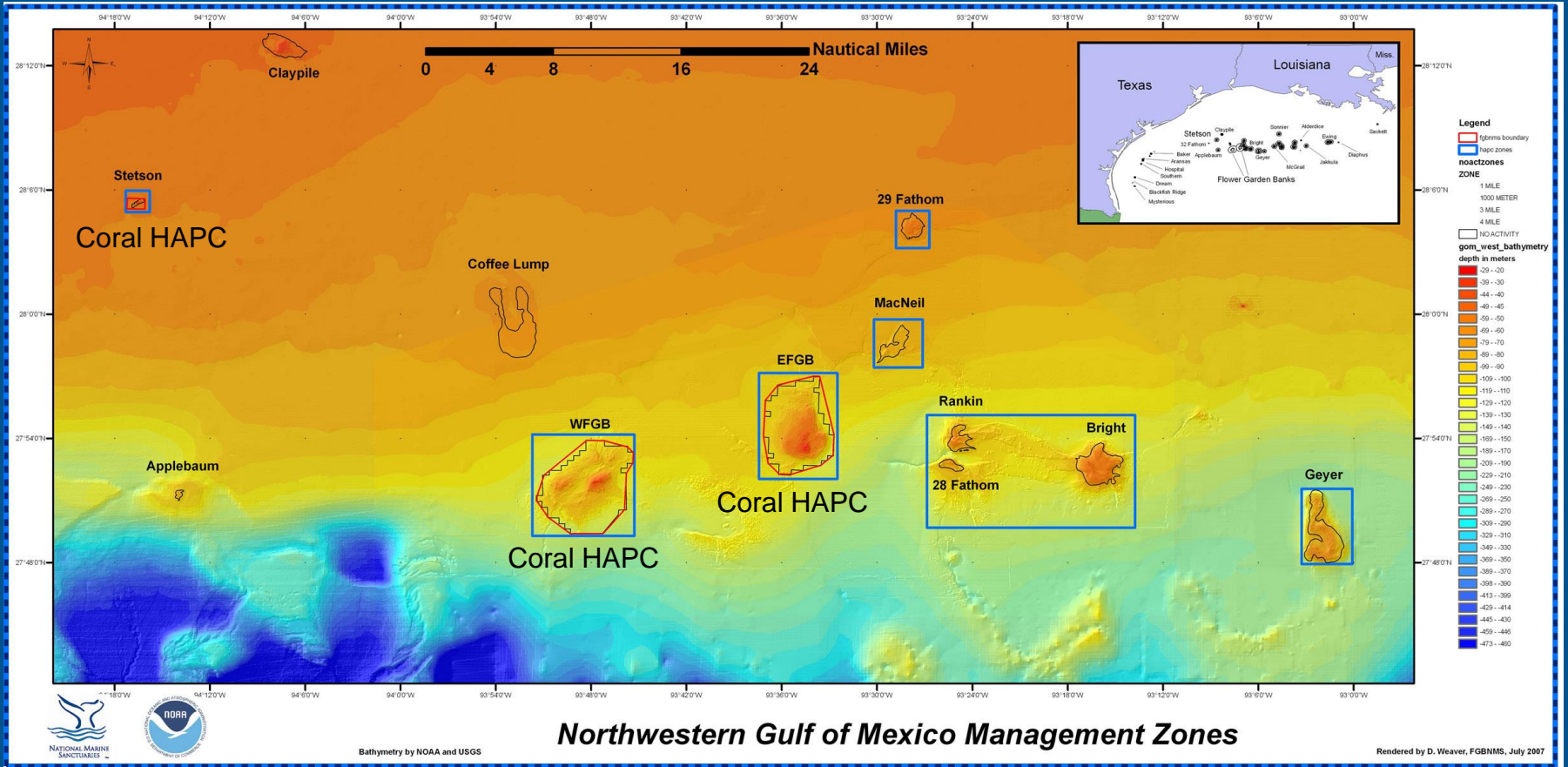


Bathymetry courtesy of USGS, UNH, Gardner and NOAA

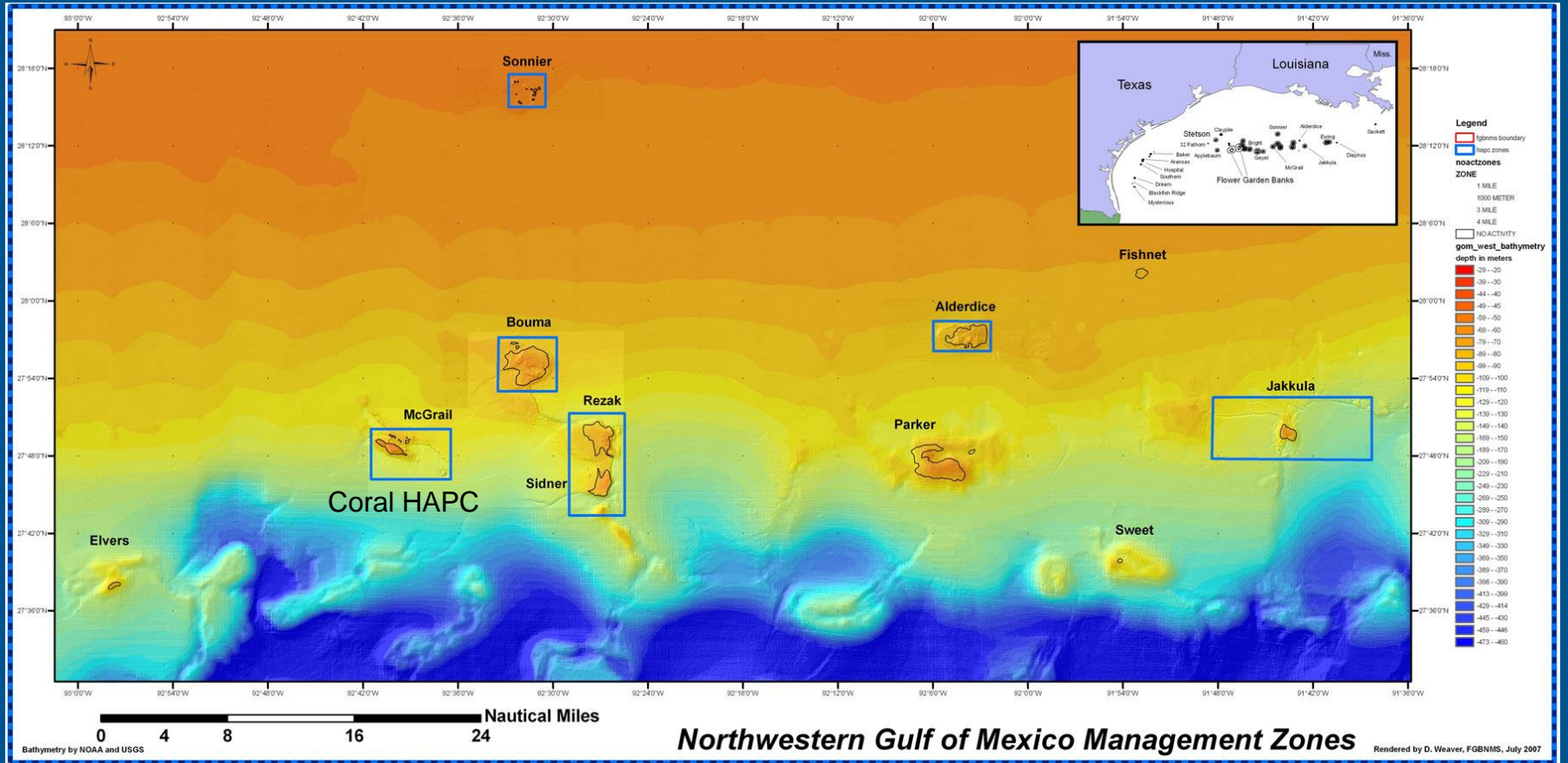
M. Nuttall, FGBNMS, July 2010



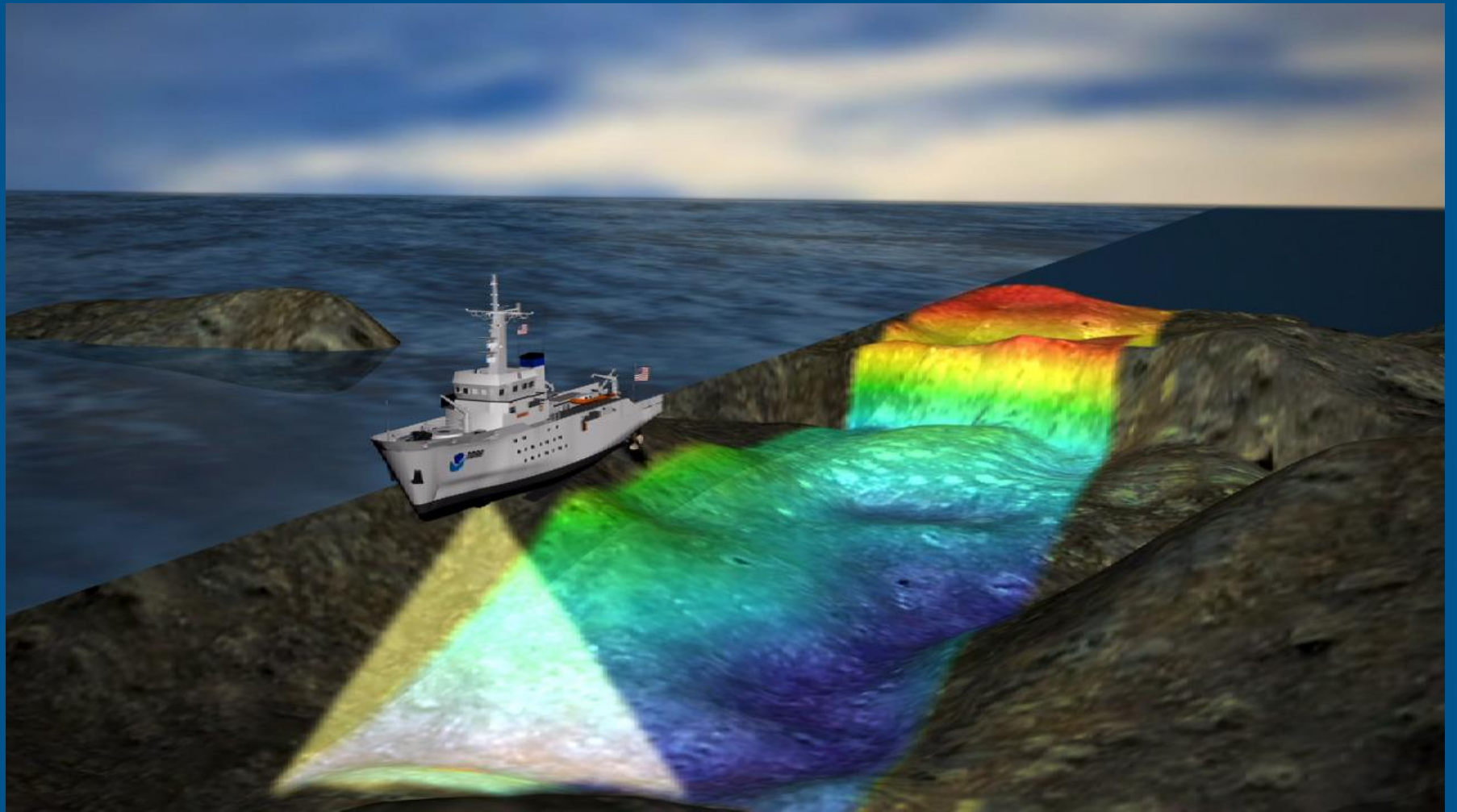
Reefs and Banks of the Northwestern Gulf of Mexico



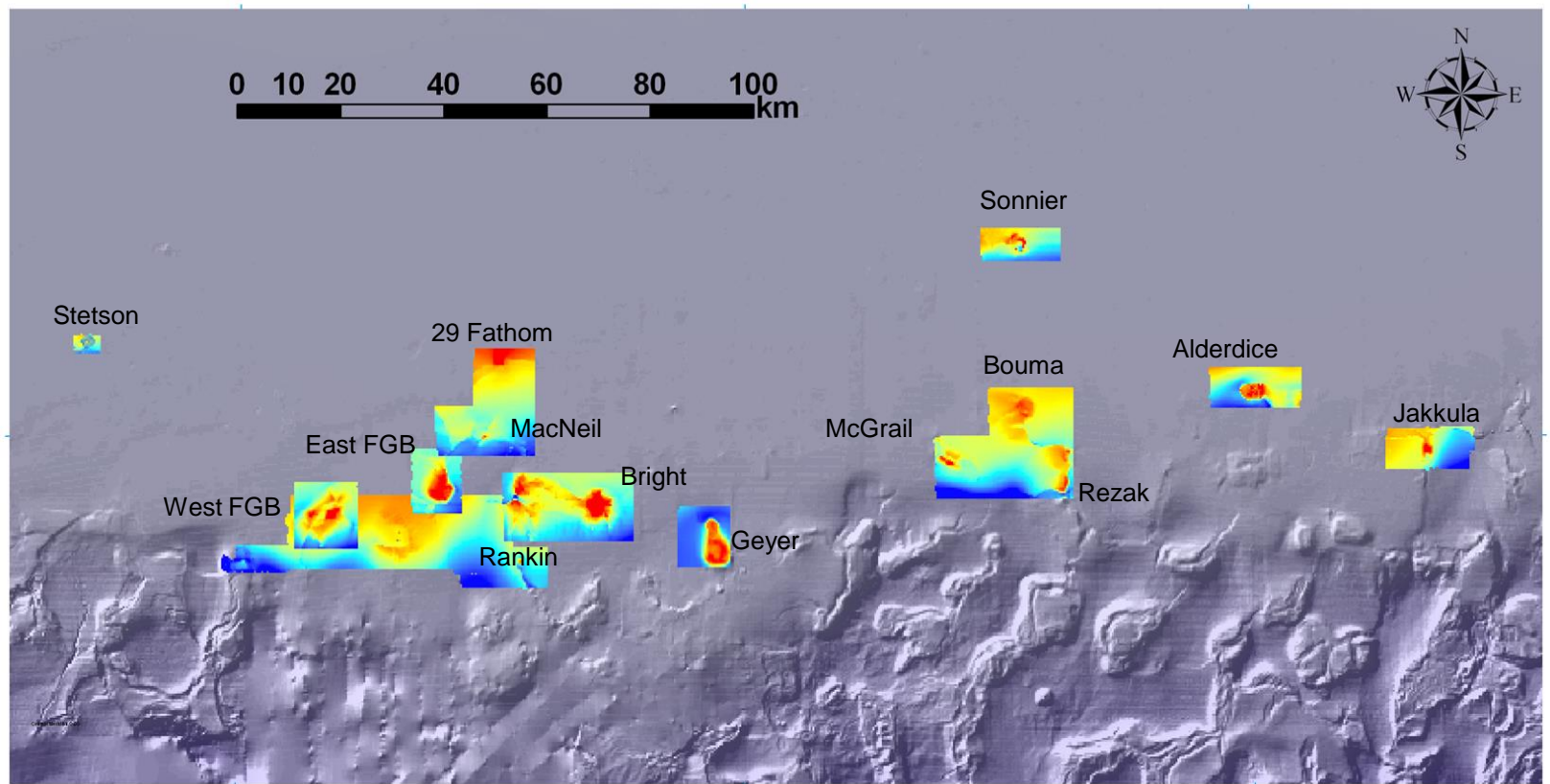
Habitat Areas of Particular Concern (HAPC)



Habitat Areas of Particular Concern (HAPC)

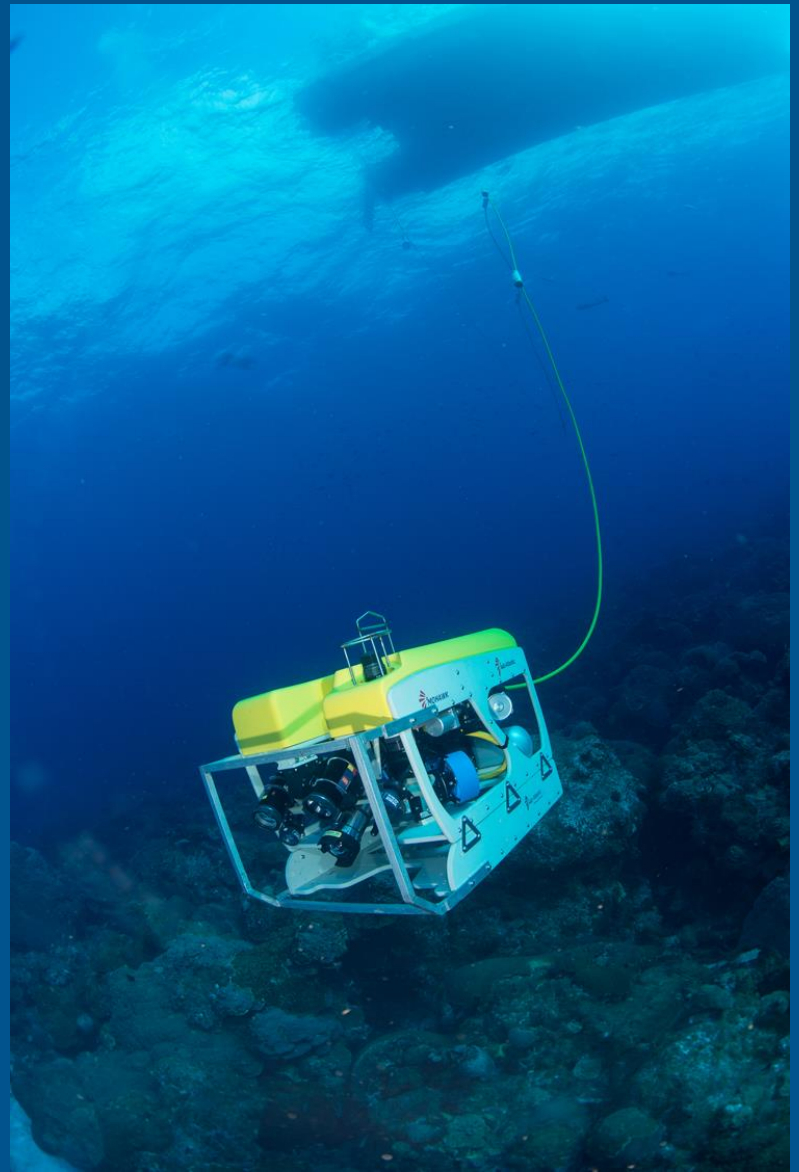
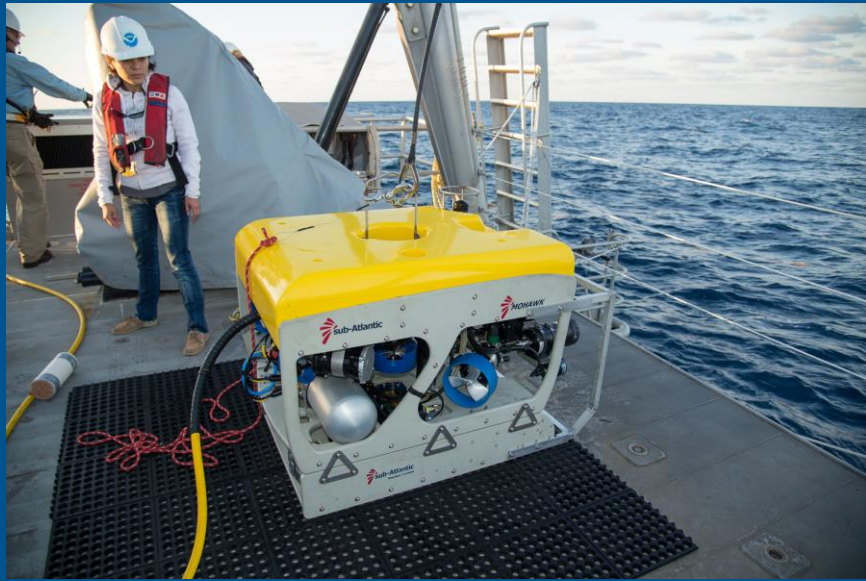


Seafloor Mapping – “Multibeam Bathymetry”



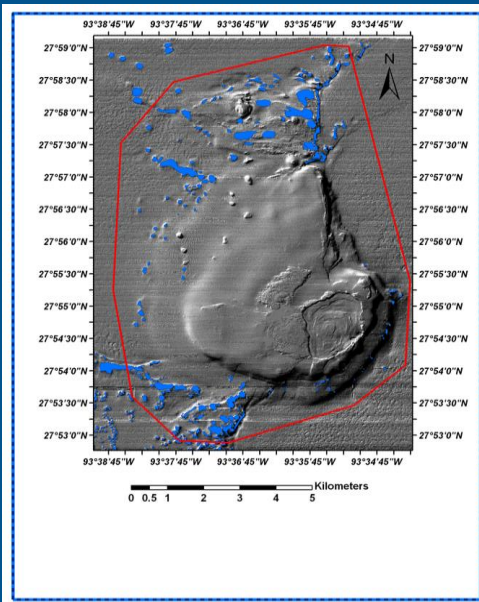
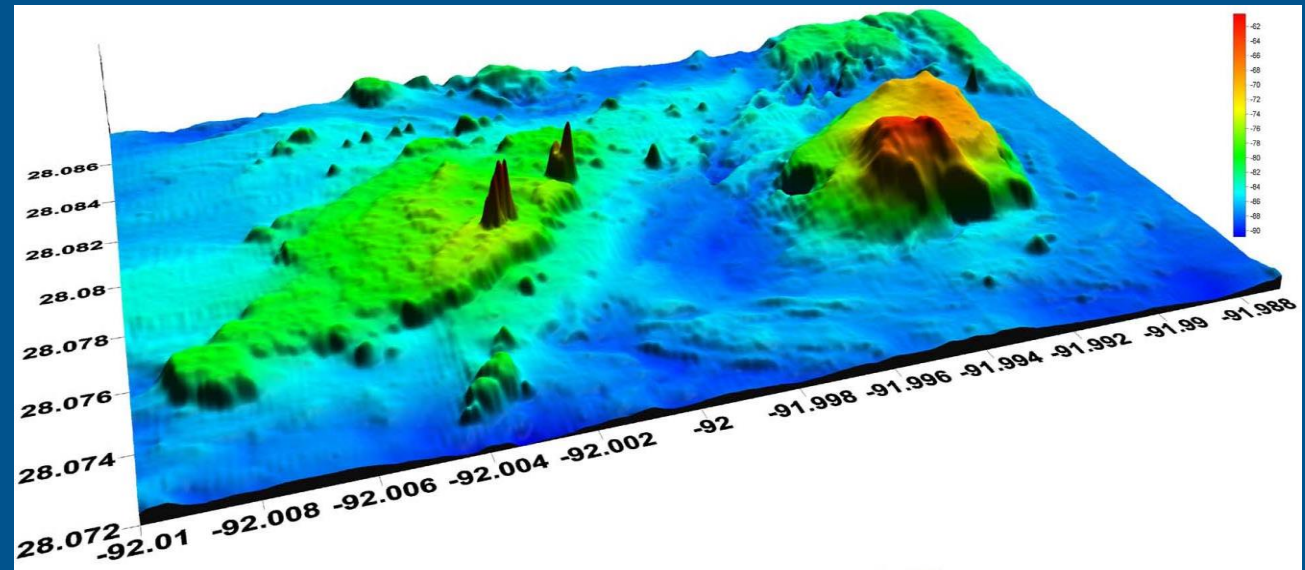
Reefs and Banks of the Northwestern Gulf of Mexico

High-resolution multibeam mapping, 2001-2007



Mohawk ROV at East Flower Garden Bank, November 2013

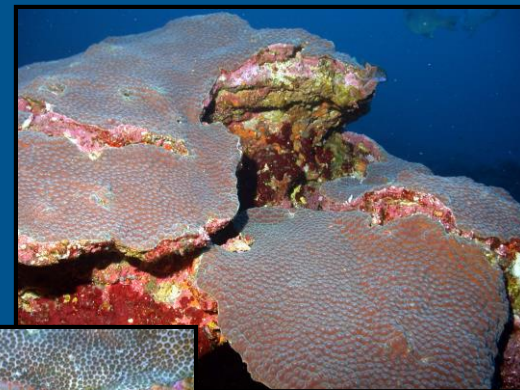
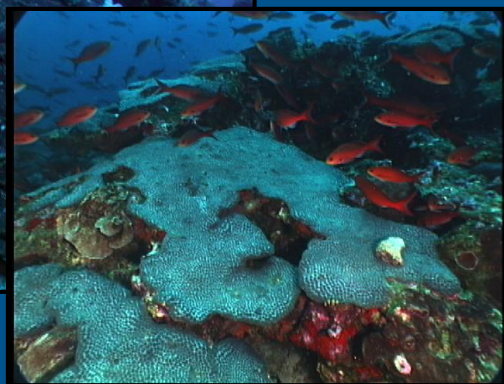
Mapping



Coral communities in the NW Gulf of Mexico

McGrail Bank - 10 species

Approx. 24% coverage in some areas

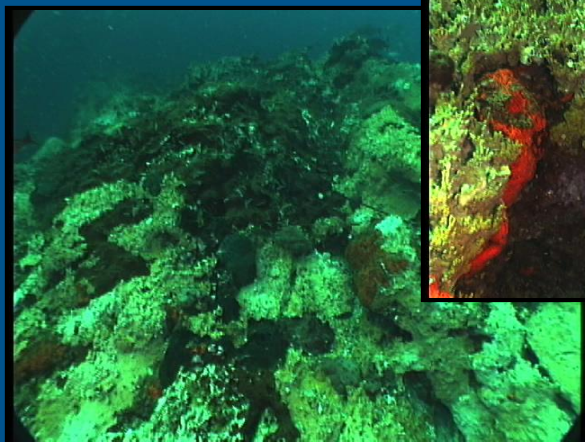


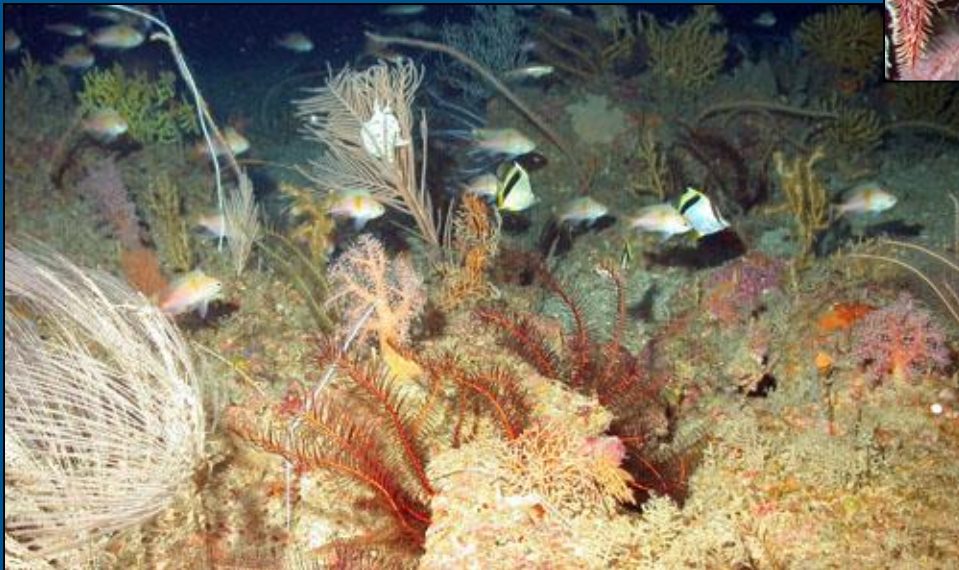
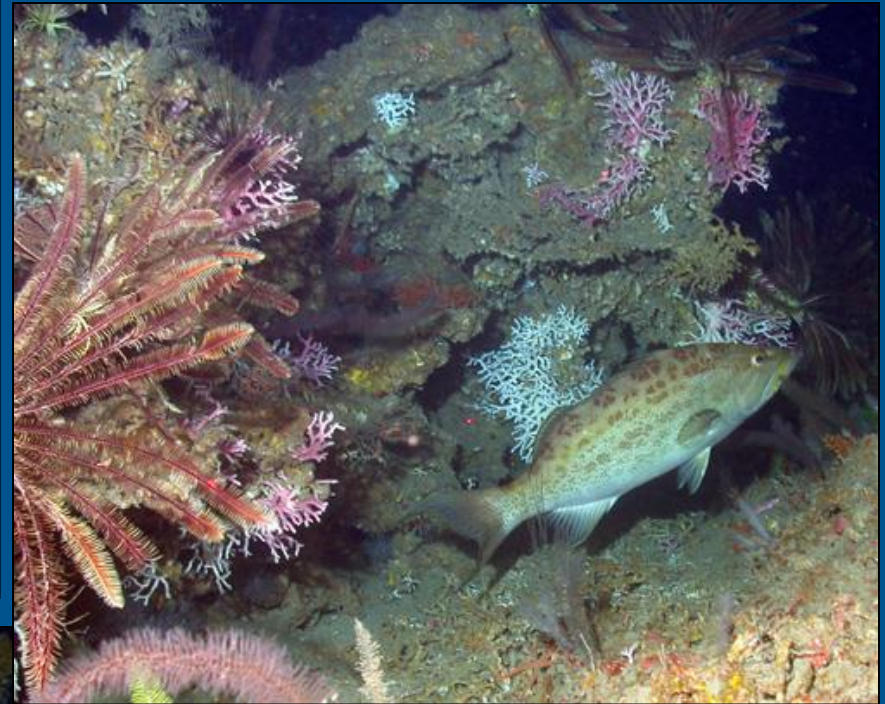
Bright Bank

6 species
34-43m

Sonnier Bank

8 species
20 - 52m





Deep / Mesophotic
Coral Communities of
the northwestern Gulf
of Mexico

Boundary Expansion Ranking Criteria

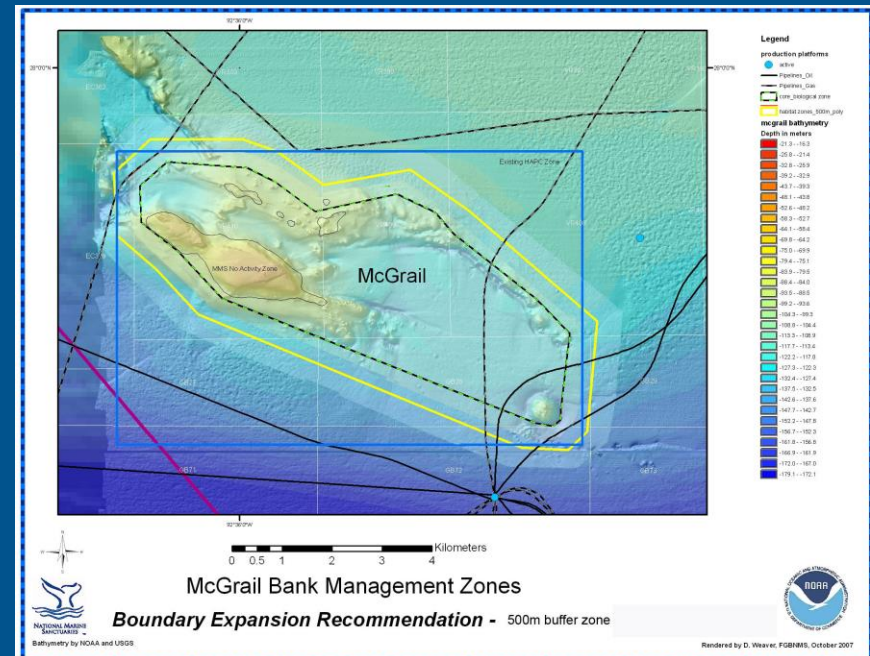
- **Resource Significance**
 - Coral reef, deepwater coral, geological feature
- **Structural Connectivity**
 - Physical connectedness (ridges, scarps, faults)
- **Biological Connectivity**
 - Distance from nearest neighbor (larval dispersal)
- **Potential or Perceived Threat**
 - Anchoring, high use, historical resource recovery
- **Public and Scientific Priority**
 - Popular diving site, high research interest

Area or Bank	Zone Priority Index	Structural Connectivity Index	Biological Connectivity	Threat Index	Public and Sanctuary priority	Overall ranking	Nearest Neighbor Distance (km)
Stetson Ring	3	3	3	3	3	12	23.3
McGrail	3	1	2	3	3	11	15.8
Geyer	3	1	2	3	3	11	18.25
Bright	3	2	2	3	3	11	14.8
Sonnier	3	1	1	3	3	10	29.8
"Horseshoe reef"	2	2	3	2	3	10	9.5
Alderdice	3	1	2	2	2.5	9.5	15.7
Rezak	1	1	3	1	2	7	5.9
Sidner	1	1	3	1	2	7	5.9
Rankin	1	2	3	1	1	6	3.4
28 Fathom	1	2	3	1	1	6	3.4
MacNeil	1	2	3	1	1	6	8.5
Bouma	1	1	2	1	1	5	11
Jakkula	1	1	1	1	1	4	23.1
Florida Middle Grounds	2	0	0	2	0	4	115
Alabama Pinnacles	1	0	0	1	0	2	219
Madison/Swanson	1	0	0	1	0	2	115

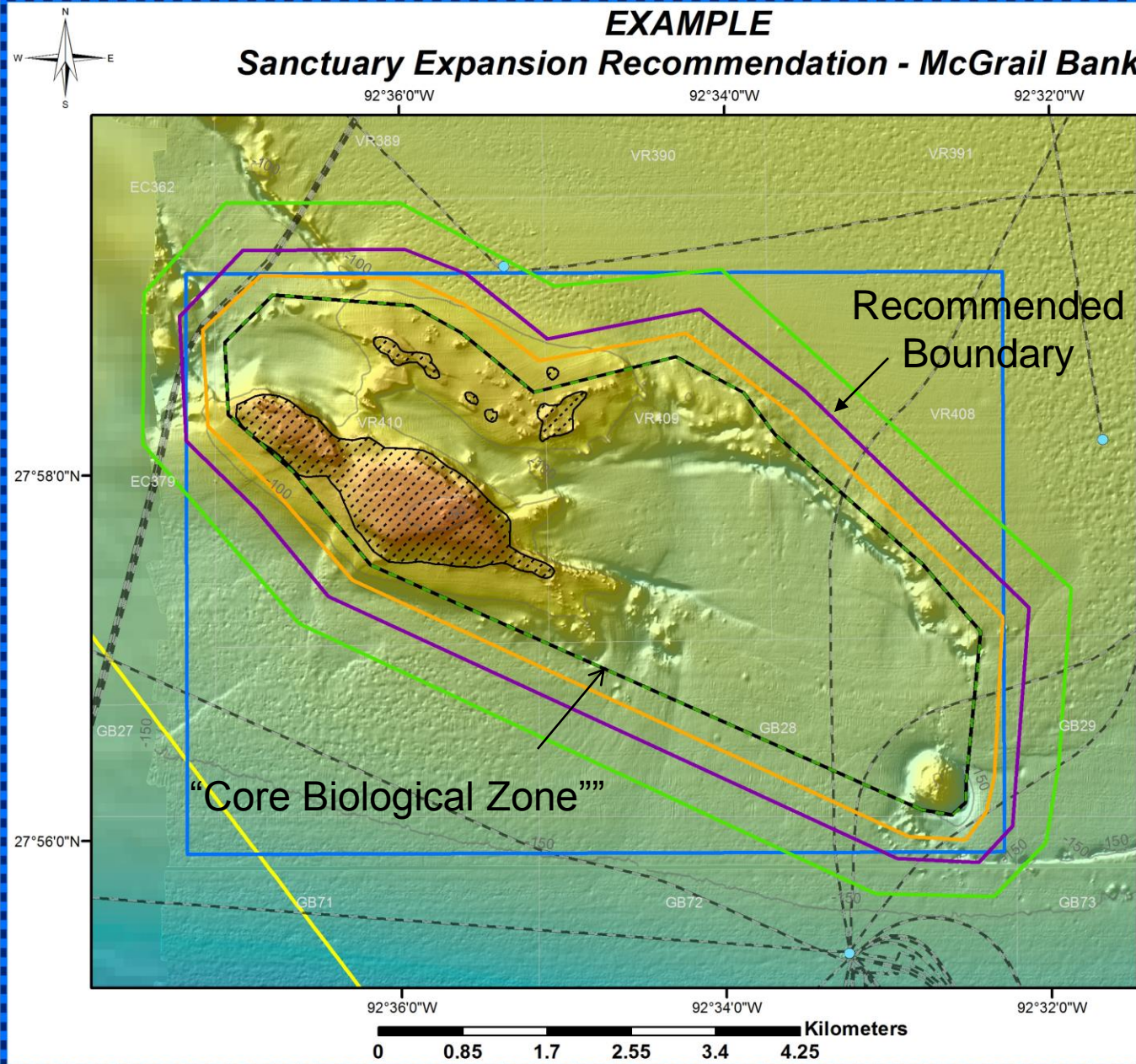
Boundary Expansion Criteria Matrix

BOUNDARY SELECTION CRITERIA

- Seafloor Topography
- Biological communities
- Oil and gas infrastructure
- Bureau of Ocean Energy Management (BOEM) regulations
- Gulf of Mexico Fishery Management Council “HAPC” designations
- Shipping Fairways



EXAMPLE Sanctuary Expansion Recommendation - McGrail Bank



Legend

- Core Biological Zone
- 250 Boundary
- 500 Boundary
- 1000 Boundary
- FGBNMS Boundaries
- HAPC
- Platform
- No Activity Zone
- Pipeline
- Shipping Fairway
- Lease Blocks
- Contour (m)

Bathymetry

- High : 15m
- Low : 473m

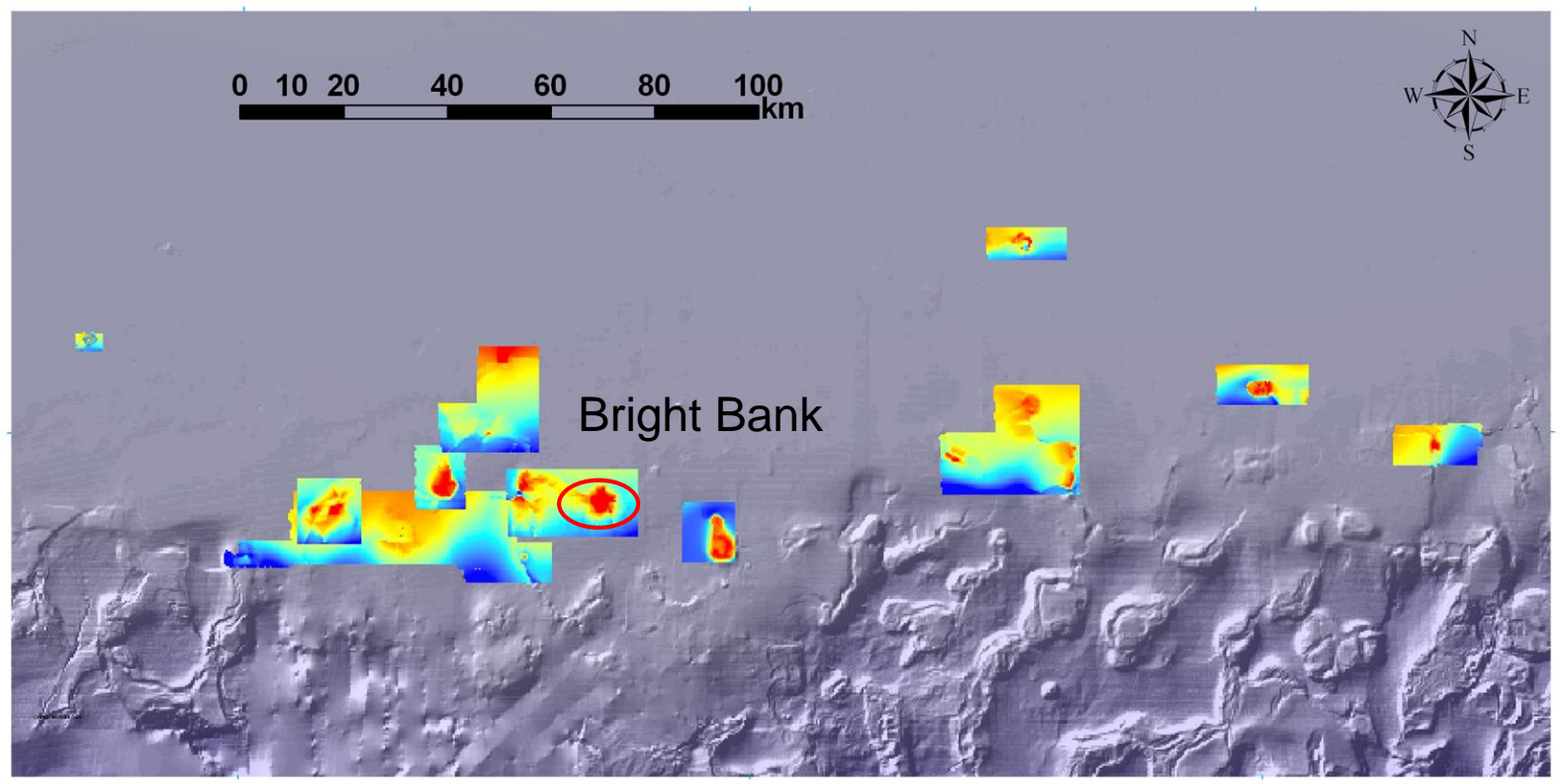


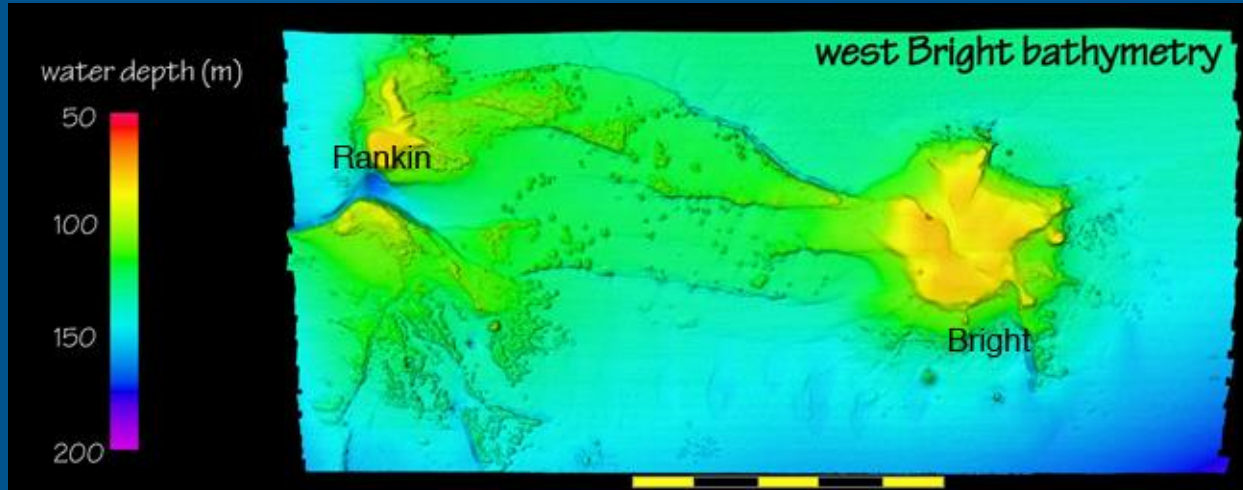
Bathymetry courtesy of USGS, UNH, Gardner and NOAA

M. Nuttall, FGBNMS, Feb 2015



Bright Bank







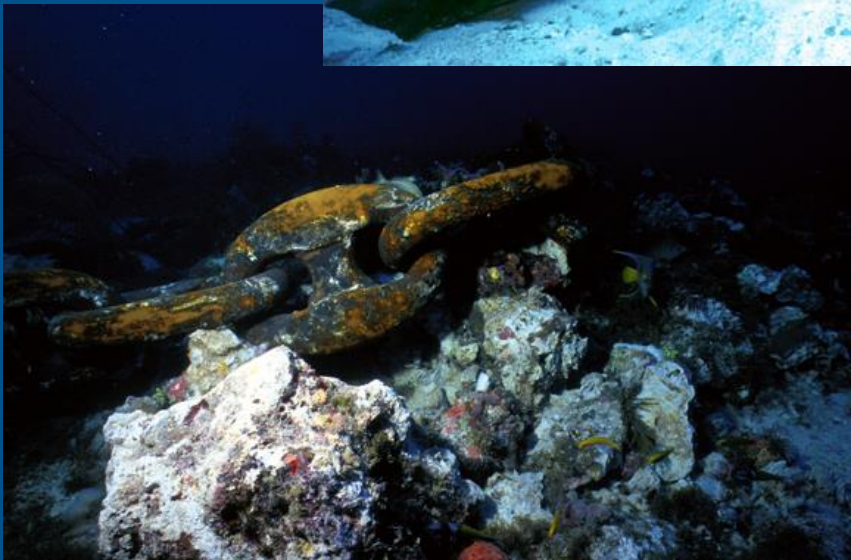
Bright Bank – “Treasure”
salvage activities



Large Vessel Anchoring

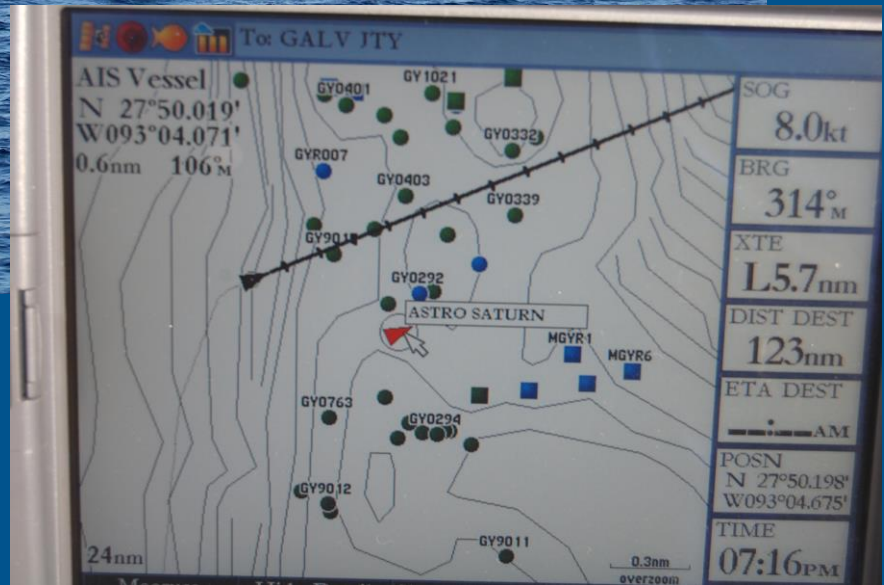
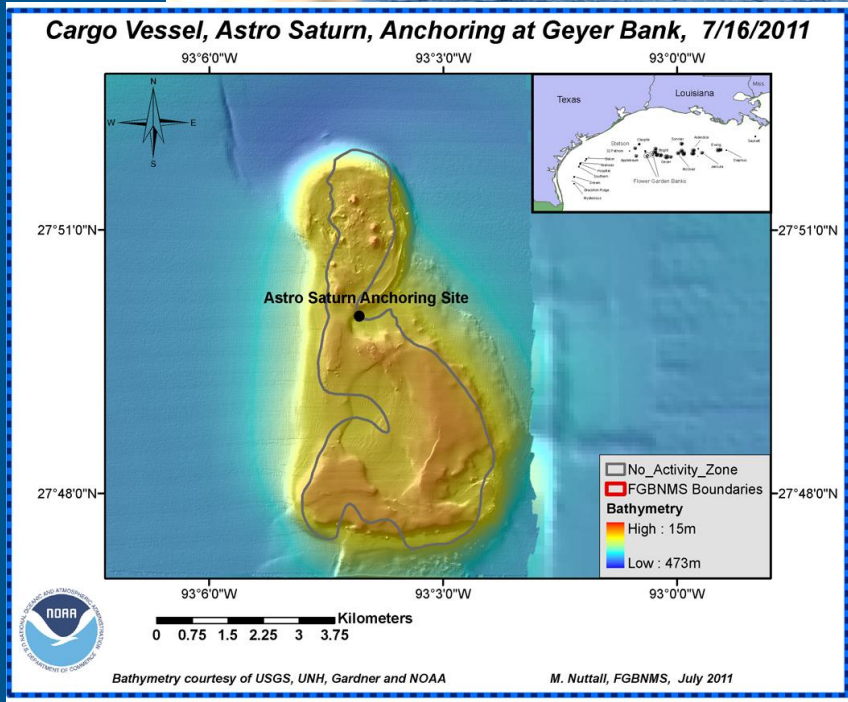


Dry Tortugas, Florida

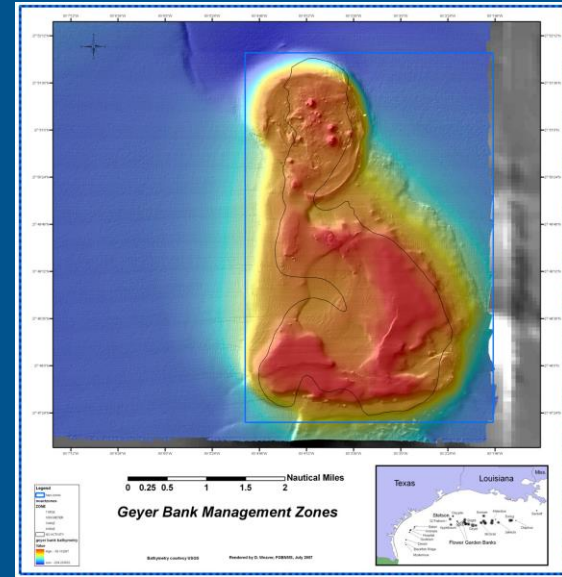


Vessel Anchoring – Geyer Bank - July 16, 2011

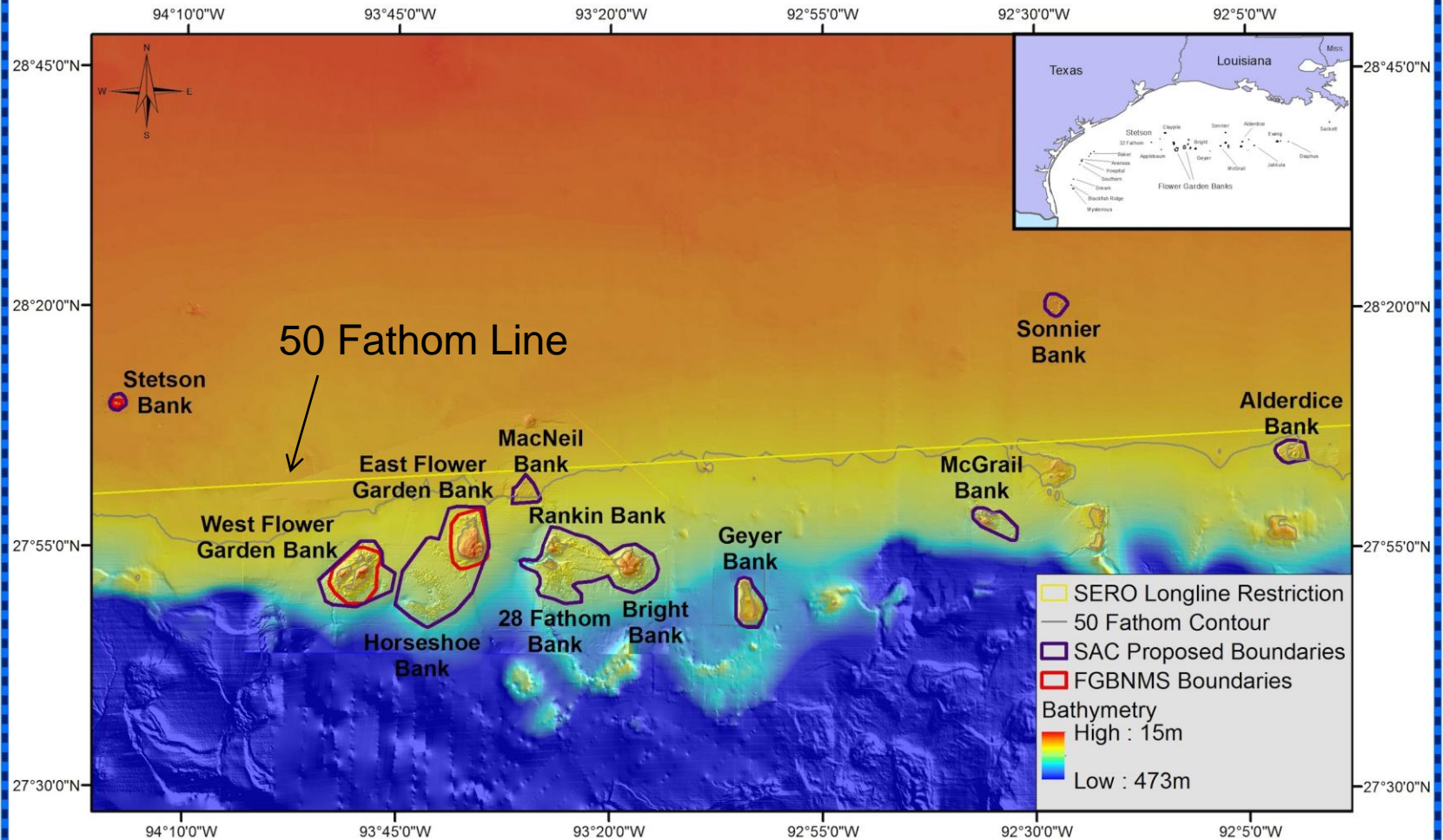
Photos courtesy John Stout, *M/V Possession Limit*



Geyer Bank



Sanctuary Advisory Council Recommendations for Sanctuary Expansion



Bathymetry courtesy of USGS, UNH, Gardner and NOAA



NATIONAL MARINE SANCTUARIES

M. Nuttall, FGBNMS, March 2015

NATIONAL MARINE SANCTUARY ACT (16 U.S.C. 1431)

SECTION 304 (a) (5):

FISHING REGULATIONS - “The Secretary shall provide the appropriate Regional Fishery Management Council with the opportunity to prepare draft regulations for fishing within the Exclusive Economic Zone as the Council may deem necessary to implement the proposed designation.”

In preparing the draft regulations, a Regional Fishery Management Council shall use as guidance the national standards of section 301(a) of the Magnuson-Stevens Act (16 U.S.C. 1851) to the extent that the standards are consistent and compatible with the proposed designation.

Sanctuary Expansion Process

2/3/15

Federal Register Notice

4/6/15

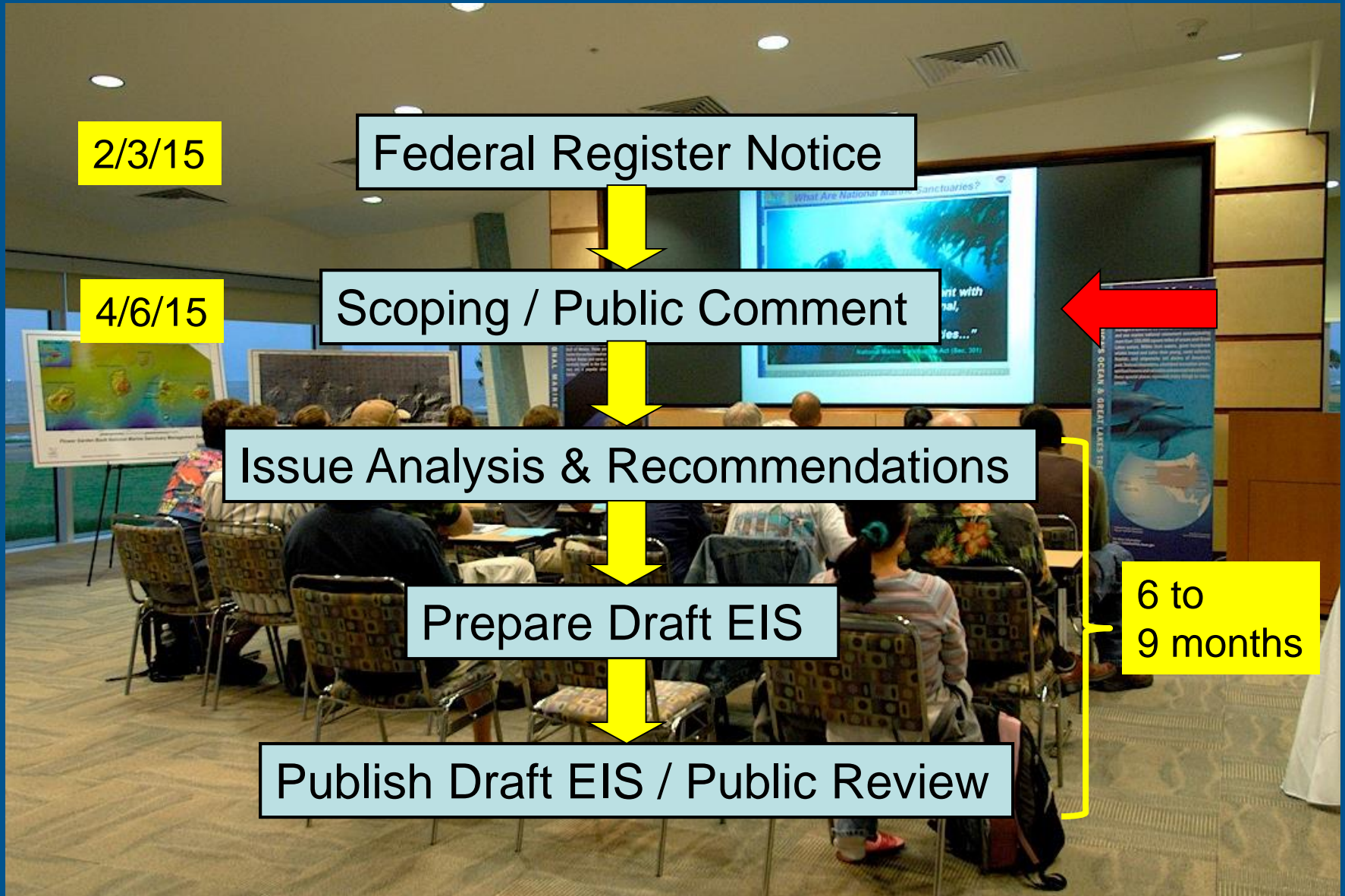
Scoping / Public Comment

Issue Analysis & Recommendations

Prepare Draft EIS

Publish Draft EIS / Public Review

6 to 9 months



National Marine Sanctuaries
National Oceanic and Atmospheric Administration



NATIONAL MARINE
SANCTUARIES

FLOWER
GARDEN BANKS

<http://flowergarden.noaa.gov>